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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,460	10/17/2003	Alexander E. Andreev	03-2065/L13.12-0255	3008

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EXAMINER

DINH, PAUL

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b> 10/688,460	<b>Applicant(s)</b> ANDREEV ET AL.	
	<b>Examiner</b> Paul Dinh	<b>Art Unit</b> 2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10/17/03 to 6/8/05.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-21 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/8/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

*The following is a quotation of the second paragraph of 35 U.S.C. 112:*

*The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.*

Claims 6 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 17 are rejected because “d” is not clearly defined in these claims.

### *Claim Rejections - 35 USC § 102*

*The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:*

*A person shall be entitled to a patent unless –*

*(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

*(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

1. Claims 1, 7, 11-12, 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasagawa et al (USP 6784574)

(Claims 1, 7, 12, 18)

a) Creating initial object assignment points of a first rectangle (abstract, fig 2-15, 25, 27);

b) Dividing the first rectangle into a plurality second rectangles (fig 12-15); and

c) Applying an object assignment procedure initially assigned objects each second rectangle (fig 2-3, 12-15, 25).

(Claim 11) iteratively repeating step c) until occurrence of a predetermined event (abstract, fig 2-3, 16-17, 25).

(Claim 11) iteratively repeating step c) until occurrence of a predetermined event (abstract, fig 2-3, 16-17, 25).

2. Claims 1-7, 11-16, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scepanovic et al (USP 6292929)

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(Claims 1, 7, 12, 18)

a) Creating initial object assignment points of a first rectangle (fig 10, 12, 42-43, col 3 line 38+, col 10 line 60+, col 16);

b) Dividing the first rectangle into a plurality second rectangles (fig 10, 26, 30, 39-48); and

c) Applying an object assignment procedure initially assigned objects each second rectangle (fig 10, 12, 26, 39-48).

(Claims 2-5, 13-16) wherein step a) comprises: a1) calculating a maximal cost of assignment of objects to points (fig 1, 31-32), and a2) selecting an assignment of objects having a minimum value of maximal cost (fig 1, 31-32) wherein step a2) comprises: calculating a maximal matching assignment based on relationship values at each point midpoint to the maximal cost (fig 1, 31-32); recalculating minimal and maximal costs based on the calculated maximal matching assignment (fig 1, 31-32), and recalculating the maximal matching assignment based on a midpoint between the recalculated minimal and maximal costs (fig 1, 31-32); iteratively repeating recalculation of minimal and maximal costs and the maximal matching assignment until the minimal cost is not smaller than the maximal cost (fig 1, 31-32)

(Claim 11) iteratively repeating step c) until occurrence of a predetermined event (fig 1, 10, 12, 26, 36, 39-48)

3. Claim 1, 7, 11-12, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scepanovic et al (USP 6134702)

(Claims 1, 7, 12, 18)

a) Creating initial object assignment points of a first rectangle (fig 3-10, 12);

b) Dividing the first rectangle into a plurality second rectangles (fig 4-6, 8-10); and

c) Applying an object assignment procedure initially assigned objects each second rectangle (fig 4-10, 12).

(Claim 11) iteratively repeating step c) until occurrence of a predetermined event (fig 7, 12)

4. Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gasanov et al (USP 6637016 in IDS submitted 6/8/05)

a) Creating initial object assignment points of a first rectangle (col 4 lines 23+, fig 4-7);

b) Dividing the first rectangle into a plurality second rectangles (fig 4-7); and

c) Applying an object assignment procedure initially assigned objects each second rectangle (fig 4-7).

***Claim Rejections - 35 USC § 103***

*The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections, set forth in this Office action:*

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

5. Claims 8-10 and 19-21 and are rejected under 35 U.S.C. 103(a) as being Unpatentable over one or more of: Sasagawa et al (USP 6784574), Scepanovic et al (USP 6292929), Scepanovic et al (USP 6134702), and by Gasanov et al (USP 6637016 in IDS submitted 6/8/05) in view of one or more of: La Mura (US patent application Publication # 2005/0038728) and Hill et al (US patent application Publication # 2004/0166864)

Sasagawa and/or Scepanovic (USP 6134702) and/or Scepanovic (USP 6292929) and/or Gasanov disclose substantially all the elements in claims 8-10 and 19-21 except Kuhn algorithm.

La Mura discloses Kuhn algorithm in para 0073.

Hill discloses Kuhn algorithm in para 0139.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Kuhn algorithm simply because Kuhn algorithm is known in the art.

***Allowable Subject Matter***

Claims 6 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 6 and 17 would be allowable because the prior art does not teach or suggest the limitation in claim 6 (lines 3-18) and similarly limitation recited in claim 17.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Dinh whose telephone number is 571-272-1890. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Dinh

Patent Examiner

A handwritten signature in black ink that reads "Paul Dinh". The signature is written in a cursive style with a long, sweeping underline that extends to the right.